AVIATION SAFETY REPORTING SYSTEM SUBCOMMITTEE
(ASRSS)

January 29-30, 2004
Monterey, CA

Thursday, January 29
9:00 AM to 5:00 PM
Morning Session

Administrative and Opening Remarks
Mr. Wirth, ASRS Subcommittee Chair, called the meeting to order. Linda Connell introduced Jeff Bixler, the new NASA ASRS Deputy. Bill Wirth outlined agenda items.

Status Report Update
Ms. Frank briefed on report production statistics, core ASRS products, and special projects. *Mandatory products*: In 2004, the projected reporting level is expected to be greater than 34,000 reports requiring 100% screening and processing determination, approximately 300 alerts, and 20 mandatory Search Requests requested through the Freedom of Information Act (FOIA) requests. *Variable products*: Projections for 2004 are for 16 precent-18 percent full-form coding, de-identification, and processing of reports to the database, approximately 150 Search Requests (for Government requesters only), 12 issues of the CALLBACK publication. Funding limitations will not permit some ASRS products to be produced, such as Quick Response studies, Directline publication, and Operational Issues Bulletins. Outreach to the aviation community in 2004 will be limited to attendance at the quarterly, FAA Air Traffic Procedures Advisory Committee (ATPAC) meetings and EAA Air Venture, Oshkosh, WI. ASRS production for FY'04 to date (3.5 mo) is a total of 10,536 reports received, 90 alerts released, and 43 total Search Requests processed.

Ms. Frank reviewed the special projects being performed through the NASA ASRS office. One project with the FAA Runway Safety Office is the identification of airport surface movement events at 75 major airports. A second project is the creation of the Security Incident Reporting System under the NASA Aviation Safety and Security Program (AvSSP). Additional AvSSP support includes continued incorporation of ASRS system enhancements, improvements to the Analyst Workbench, and continued coordination with airline ASAP programs.

A summary of the November 2003 NASA/FAA Semi-Annual meeting was presented during which future ASRS IT developments were discussed. Ms. Frank discussed different aspects of the current IT plan, including the Analyst Workbench, Internet security risk assessment, exploration of electronic de-identification tools, and the public access to the ASRS database through Query Wizard, a custom browser-based search tool. She presented an ASAP update that showed ASAP submissions equate to roughly 36% of ASRS report intake in 2003. Ms. Connell stated that the renewal of the Interagency Agreement and other administrative details were also discussed. She stated that

approximately 20% of ASAP reports are matched to direct submission reports, which add improved content and quality to the report record. Ms. Connell commented that ASAP reports are usually less candid with fewer details concerning human factors than direct submission reports.

The members raised concern that too many Alert Bulletins are sent out at one time. ASRS staff noted that over the holidays a backlog of Alert Bulletins had developed, which is corrected. Mr. Landsberg asked about the criteria used for an Alert Message. Mr. Mellone stated that events of high safety value would be typical of Alert Bulletins, i.e., 757 wake turbulence, 737 rudders problems. FYI messages are selected for distribution from lower level safety concerns. Mr. Hedges reviewed the genesis of the ASRS reporting system and emphasized the criticality of timeliness for alerts. Ms. Connell noted that response time was evaluated as it relates to the severity of each case, and a discussion of early alerting followed. Mr. Landsberg questioned whether ASRS Alert Bulletins could be sent out to the respective industry groups by category, i.e., general aviation, corporate, airline. A majority of the members stated that they would like all Alert Messages sent to them for their review. Mr. Wright asked for a clarification on the dissemination guidelines for alert messages. Mr. Mellone stated that they are disseminated related to their applicability to recipient areas of interest or authority.

Mr. Bourque raised several issues concerning ASAP: the consistency of ASAP forms for mechanics and dispatchers, the quality of reports, and when ATA last addressed standardization issues. A discussion followed concerning duplicate reports on the same event. (i.e., ASAP and ASRS reports from the same person). Ms. Connell stated that this is an advantage to the final record on information on an event since they originate through differing approaches. A discussion followed on the possible standardization of ASAP reports among airlines, difficulties involved, desirability to get more airlines involved, and the need for a large nationalized database. Mr. Anoll reiterated that ASAP data must go to a centralized government source, such as NASA, to prevent a similar accident like TWA 514, which resulted in the creation of ASRS. Mr. Prest noted the relationship between FAA, ASY (Office of System Safety) and FAA, AFS (Flight Standards) is critical if ASAP information is useful.

Current High Profile Safety Issues

Mr. Mellone briefed three high profile safety issues:

1) Airport Surface Movement Events
2) Teterboro Five Departure Incidents
3) Gulfstream V Inadvertent Engine Shutdown

Mr. Mellone presented on the airport surface movement work being performed for the FAA, Office of Runway Safety. He reported there were 531 incidents at 21 airports that were being evaluated. Mr. Swanda requested a clarification on how high profile safety issues are selected, and Mr. Wirth wanted to know how many high profile safety issues there were per year. Mr. Mellone stated that they are prepared only for the ASRS Subcommittee meetings to highlight significant alert messages or projects. Ms. Kolander requested the subcommittee be given written documentation of these high profile safety

issues. The ASRS staff agreed to place a synopsis of high profile safety issues in each member's information folder for the next meeting. Mr. Landsberg requested clarification on how ASRS runway incursion data correlated to FAA data, particularly the (A, B, C, and D) designations. Mr. Mellone stated that the A, B, C, and D designations could potentially be applied to the ASRS data, but only up to the depth of the information provided in the ASRS report. Discussion continued concerning runway incursion terminology used by FAA, which differs from the standard definition used by ASRS. Mr. Mellone provided a very detail explanation of the historical difference and the current use of the terminology of Airport Surface Movement Event (ASME). The project with the FAA, Runway Safety Office is using the ASME terminology for the data from ASRS to avoid confusion. Mr. Voigt requested to be provided with the list of 75 airports being used in the FAA airport surface movement event study. Mr. Bourque inquired as to how towing incidents were counted in runway incursions, and was told that, no incidents had been reported to ASRS.

Mr. Mellone presented on the Teterboro Five Departure and the increasing number of pilot deviations. There have been 18 incidents in 2003, where previous years have averaged 4 incidents. During a follow on discussion Mr. Hedges stated that Mr. Anoll would work toward corrective actions through discussions with Air Traffic. Mr. Swanda said he would talk to Jeppeson and see if the presentation of the departure could be simplified or clarified on a separate page. Mr. Russell wondered what type of metric ASRS could use to log and monitor problems. Most subcommittee members believed metrics to be difficult in a prevention-based program, but might be explored. Mr. Mellone concluded by presenting an Alert Bulletin that featured a dual engine shutdown on a Gulfstream V aircraft.

FAA FY04- Goals

Mr. Hedges began his presentation by discussing a previous request from the ASRSS members concerning the "5-year rule" described in the FAA's AC 00-46D for ASRS. He reported that the legal office had advised that the 5-year immunity limit for ASRS begins after a finding of violation is determined, not from the date of the incident. There were general discussions as to the implication of this interpretation. Mr. Hedges stated that he would discuss with the legal office, and possibly, Mr. Sabatini (FAA, AFS), to work on changing the 5-year time limit to begin from the date of incident. The FAA will notify the Subcommittee of the status at the next meeting. Mr. Landsberg inquired as to how this information would be passed to the public, if a change occurred. The FAA point of view was to make it a two-tiered approach; first clarify the current language and then rewrite the Advisory Circular. It was also reported by Mr. Hedges that Temporary Flight Rule (TFR) violations are not being considered criminal violations, as reporters to the ASRS had questioned. Mr. Swanda clarified that the 5-year restricted immunity is only a factor if a violation is determined.

Mr. Hedges then reported on the FAA reauthorization signed on 12/19/04. The FAA has been asked to report back to Congress on ASRS within 90 days. The report will address three areas: how the FAA uses the ASRS, how the FAA data gathered from ASRS relates to and interacts with other government databases, and the future of ASRS. Mr.

Hedges said that he would provide a copy to the Subcommittee after submission to Congress.

Mr. Hedges described the new FAA organization for Air Traffic. The Air Traffic Organization (ATO) has six new V.P.s and the overall FAA budget changes. Secretary Mineta is emphasizing a new ATC system. He said that the overall FAA budget is being reduced by about 16%, but it is not anticipated that FAA, ASY will be negatively impacted with the FY 04 budget cuts. The FAA stated a $2.26 million is the budget line, but the full $2.4M is expected for FY 04 ASRS budget.

He described a meeting with Russ Chew, the new CEO for FAA ATO, in which a presentation was made by Austin-Digital regarding radar data analysis in a similar manner as Flight Operations Quality Analysis (FOQA) data. Mr. Wirth asked how this relates to the work Dr. Statler has been doing with the NASA Aviation Performance Measuring System (APMS). Mr. Hedges said he was hoping to talk with Dr. Statler about the progress of APMS.

Mr. Anoll continued the FAA presentation on an FAA Perspective on Safety Risk Management, including

- System Safety Handbook- FAA Order 8040.4
- Hazard vs. Risk
- Hazard- condition
- System Safety Process – Hazard Risk Matrix
- Risk- likelihood of hazard occurring
- Hazard Identification and Control
- Decision making and Development of Action Plans
- High likelihood of occurrence and high consequence, mitigations need to be developed.

The system safety process flow has a variety of tools that can be applied to analyze hazards. Mr. Swanda questioned where ASRS fits into the FAA risk management model. Mr. Landsberg stated that it is easy to identify the hazard, but hard to identify the probability.

Afternoon Session

Security Incident Reporting System (SIRS) Update

(Due to a requested change in the agenda, SIRS presentation was presented early)
Mr. Bixler reported on the new R&D NASA project, the Security Incident Reporting System (SIRS). The presentation covered the following topics:

A. Background: Creation of SIRS based on two primary factors;
   1. NASA's commitment to President Bush's request to improve national security
   2. ASRS was receiving reports with sensitive security information.

B. Sub-Project Goals & Objectives: To provide a national, confidential, non-punitive reporting system based on the ASRS and NASA/VA Patient Safety Reporting System

(PSRS) models that will serve as a data resource and early warning system for security stakeholders in the aviation community.

C. Summary of Planning: As part of the NASA AvSSP, SIRS planning and development was initiated following NASA program guidelines, including the initiation of an industry consortium - Technical Working Group (TWG).

D. Roadmap: Overview of three-phase implementation;
   1. Phase One – creates prototype of the SIRS system at three Bay Area airports (SFO, SJC, OAK)
   2. Phase Two - expands SIRS in two steps to 22 additional airports
   3. Phase Three - prepares SIRS for nationwide implementation

E. Technical Challenges: lists concerns involved with incorporating several new unfamiliar reporting groups into the reporting system and dealing with security related information in this new program.

F. SIRS Consortium - TWG Members: numerous members who attended initial SIRS meetings and those interested in participating in the future formulation of SIRS.

Mr. Swanda and Mr. Russell voiced their desire to have their respective organizations represented in the SIRS TWG meetings.

Open Discussion

The previous meetings minutes were reviewed for approval. Mr. Anoll called attention to eliminating the word "advisory". Mr. Landsberg began a discussion of runway incursions at non-towered airports, and the ASRS definition differences from the FAA classification from Mr. Mellone's earlier presentation. Mr. Wirth inquired as to whether the ASRSS minutes could be posted on the ASRS website. Ms. Connell replied that the minutes are placed in the Library of Congress as part of NASA's Federal Advisory Committee Act (FACA) requirements. Ms. Connell will discuss with NASA HQ. The Subcommittee membership was discussed, including the addition of a DOD, NTSB or FAA Flight Standards member. The members stated that an NTSB member might be an appropriate addition. Dr. Connors will talk to the NTSB about interest in ASRS Subcommittee membership. Ms. Connell will consult with NASA HQ concerning number of members allowed. Mr. Swanda recommended Deborah Bruce at the NTSB, as a possible Subcommittee addition. She is a data analysis person and does not have an accident investigation role.

Mr. Landsberg wanted his comments put into the record on electronic submission, since he would be absent for the rescheduled discussion on electronic submission the following day. Mr. Landsberg voiced a strong opinion that ASRS needs to move forward with electronic submission. AOPA has done a lot of Internet work and would like to encourage the subcommittee members to aid NASA in implementing an electronic submission system. AOPA's IT department recommended that the ID strip be split from the rest of the report form during transmission, and then be reconnected. He believes

General Aviation is underrepresented in ASRS and that electronic submission might encourage more GA participation. He said AOPA would conduct a member survey regarding on-line ASRS submissions. Mr. Prest stated he felt the risk is higher not to move forward with technology, and that ASRS needs to move into this area. He also stated a concern that ASRS would be inundated via electronic submission with more reports than it may be capable of handling under the current funding. Mr. Hedges addressed the area of electronic submission and how this initiative could move quickly by working to meet the e-government initiative enacted in the Bush administration. Dr. Connors voiced concern about the impact on ASRS. She cited several NASA examples of government initiatives that did not reach expectations. She also noted that the Department of Defense did extensive research on electronic absentee voting for the military and four outside advisors said the web is not secure. She believed an outside source should be brought in to evaluate ASRS electronic report submission proposals. Dr. Connors noted that although the probability of an adverse event was low, the impact of such an event could be very high and that this potential needed to be fully understood. Mr. Anoll stated the FAA would like to use an on-line ASRS submission design to help establish a base line on altitude deviations prior to the upcoming Reduced Visibility Separation Minimums (RVSM) requirements. Mr. Anoll indicated there was a study available that states that ASRS reports are a trending indicator of systemic safety issues. Mr. Anoll will provide the report to ASRS and Subcommittee members. The rest of this discussion was tabled until the following day's Internet security presentation.

ASRS, VMV, Goals & Master Strategies

The members reviewed the current VMV draft completed at the ASRSS July 2003 meeting. Decisions on the final, agreed language for the Vision, Mission, and Value statements were made. The members agreed to the following text:

VISION: ASRS is to be the leading worldwide authority on confidential aerospace safety reporting.

MISSION: ASRS is to capture confidential reports, to analyze the resulting aviation safety data, and to disseminate vital information to the aerospace community.

VALUES:

- ***Safety*** – Focus all activities to enhance aviation safety.
- ***Confidentiality*** – Ensure the confidentiality of the reporter.
- ***Non-punitive*** – Maintain the non-punitive nature of the program.
- ***Timeliness*** – Distribute safety information in a timely manner.
- ***Quality*** – Produce excellent products and perform all tasks with professionalism, accuracy, and relevance.
- ***Efficiency*** – Manage all resources wisely.
- ***Integrity*** – Conduct all activities with the highest commitment to honesty and objectivity.

The Goal statements were reviewed and consolidated for final review the following day. When the Goals are approved, the development of Master Strategies will be developed to

accomplish each of the Goals. The NASA ASRS Office Program will propose these Master Strategies. The current Goals are below:

1. Support the aerospace community's risk management efforts by:
   - Routine data analysis
   - Identification of conditions and patterns which may be precursors of potential hazards
   - Rapid dissemination of time-critical safety information
2. Measure the success of the ASRS program using a set of dynamic, measurable objectives
3. Maximize the acceptance of and participation in ASRS by all segments of the aerospace community
4. Disseminate ASRS safety findings worldwide
5. Enhance data management (internal)
6. Increase the percentage of full-form reports to insure that all relevant data are entered into the ASRS database
7. Enhance compatibility of ASRS data with other safety information sources or systems (external)
8. Support human factors research
9. Make ASRS data accessible

Friday, January 30
9:00 AM to 12:00 PM

Minutes from the past ASRSS meeting (July, 2003) reviewed the previous day were unanimously accepted.

FAA Presentation on Internet Security

Mr. Anoll presented on the topic of Internet security as related to electronic report submission of ASRS reports. He emphasized a list of potential advantages that might be gained from electronic submission. Some of the advantages were to improve report processing, report retention, reduce processing errors, improve data quality, faster/easier submissions, and improve safety information. He compared the security required for ASRS report submission to systems used by financial institutions making electronic monetary transfers. Mr. Anoll noted the increased submission capability available to ASRS by moving to an electronic system. He stated that electronic submission would allow ASRS to easily reply to a reporter, and to enable computer drill down features on selected topics. Mr. Anoll introduced Mr. Loranger from the FAA Office of Information Systems Security. Mr. Loranger addressed computer security issues and stated his belief that NASA was one of the leaders in Internet security. Mr. Loranger felt the issues he had discussed with NASA and the ASRS staff prior to the meeting had made him more aware of numerous security concerns regarding Internet submission, but he believed that all issues could be addressed adequately. One of the big areas of concern involves keystroke monitoring from company computers, spyware, or other intrusion techniques.

Mr. Loranger stated this monitoring is only a concern until a SSL environment is established.

The main topics covered in Mr. Loranger's presentation were:

A. Advantages of Using the Net:
   1. Improved efficiencies
   2. Greater report retention
   3. Reduced processing errors
   4. Improved data quality
   5. Ease of submission
   6. Improved qualitative safety information

B. Concept of ASRS Operations and the Internet:
   1. Anti-viral Internet Firewall
   2. Proxy Server
   3. ASRS Secure Internet Server with 1024 bit encryption
   4. Internal ASRS Holding Tank

C. Web Based Application Concerns:
   1. Website exploitation
   2. Website targets

D. Security Risks:
   1. Bugs or configuration problems
   2. Browser side security
   3. Interception of network data
   4. Top Web Vulnerabilities

Mr. Swanda addressed a concern about reporter callback continuing to be via telephone and not via e-mail. Mr. Loranger agreed and stated that almost any form of email communication is not secure. Ms. Connell agreed to create a draft plan for Internet submission that would address risks with mitigation strategies, approximate cost, installation timeframe, and identification of any residual risks unable to be mitigated. The members agreed that ASRS should move forward with the planning for Internet submission and believed the risks could be manageable. Mr. Hedges recommended a small study group to present the architecture for the draft plan at the next meeting and a possible telecon with the members before the next meeting.

ASRS VMV, Goals & Master Strategies (Con't)

The goals statements consolidated from the previous day were reviewed and approved following suggested revisions from members. Mr. Russell suggested that a methodology be developed, which ASRS could incorporate to measure ASRS progress. Possibly establishing a metric linked to the strategies listed in the ASRS VMV document.

Open Discussion

Ms. Connell reported that an AP news release from 27 Jan 2004 had aired on NPR concerning the sharing of private passenger data with NASA and the government. The SIRS project work was mentioned in this news piece and article, as well as ASRS. Ms. Connell informed the members that this was an error and assured the members that no ASRS data was used in that project.

Ms. Connell reported that NASA has re-organized the main NASA Advisory Committee and to whom ASRSS reports. The ASRSS will now report to a newly established Subcommittee called Revolutionizing Aviation. Mr. Swanda was familiar with this new subcommittee and had been asked by NASA to participate as Chair. Mr. Swanda stated that this change would not affect the structure of the ASRSS.

Ms. Connell provided an update on the International Confidential Aviation Safety Systems (ICASS) group that was initiated in the 1980's by ASRS and currently includes nine countries – United Kingdom, Canada, Australia, Russia, Japan, Taiwan, Korea, China and U.S. The Canada and Australia are in the process of assessing possible changes to their voluntary, confidential reporting systems to include stipulations for transactional immunity and possible prohibition to use of third party information that may be provided to the reporting system. Mr. Bourque inquired about the Canadian system concerning transactional immunity or if the program was being university managed. Ms. Connell replied that a university in Canada had been proposed as their new "honest broker". He also asked if any other countries had transactional immunity like the ASRS. Ms. Connell responded that the U.S. ASRS has third party protections and transactional immunity as prominent features within the provisions of the Code of Federal Regulations for aviation and the FAA, Advisory Circular 00-46D. All other countries have some level of "use" immunity, but not "transactional" immunity like the U.S. As far as third party exposure, each country's system handles this differently.

A discussion of data protection for the ASRS in relation to FOIA request was initiated. Mr. Swanda proposed and was supported by the members who wished to be informed of any FOIA requests for ASRS data.

Mr. Hedges discussed the FAA Small Aircraft Transportation System (SATS) program and said that in the 2008 Plan they would be attempted to address how the ASRS database information might be used to contribute to their safety index, quantitatively or qualitatively. Mr. Swanda inquired about addressing what role ASRS might play in a national aviation safety index.

Mr. Wright asked about the next meeting for future planning. The members proposed the next meeting dates could be the last week of July and the second week in August. NASA will send out a selection three dates to members to determine their availability.

After a brief summary from Mr. Wirth, the meeting was adjourned.

ACTION ITEMS
From
ASRSS Meeting
January 29-30, 2004

1. Biannual review of VMV, Goals and Master Strategies document	(Members)
2. Provide list of airports from ASME study to interested members	(Frank/Mellone)
3. Provide FAA Congressional response concerning ASRS	(Hedges)
4. Report changes to Advisory Circular, including 5-year time limit language	(Anoll)
5. Invite NTSB to join the ASRSS	(Connors/Connell)
6. Contact NASA HQ concerning ASRSS minutes on website	(Connell)
7. Draft an electronic submission plan	(Connell/Anoll)
8. Provide report concerning ASRS trending	(Anoll)

Approval: _____ _____
William Wirth, Chairman Date

National Aeronautics and
Space Administration
Ames Research Center
Moffett Field, California 94035

AVIATION SAFETY REPORTING SYSTEM
Advisory Subcommittee Meeting
Thursday, January 29, 2004

0900-0930: **Opening Remarks & Welcome**
Bill Wirth, ASRSS Chair & *Linda Connell,* ASRSS Executive Secretary

0930-0945: **Status Report Update**
Stephanie Frank, Program Manager, Battelle

0945-1030: **Current High Profile Safety Issues**
Vince Mellone, Deputy Program Manager, Battelle

1030-1045: **Break**

1045-1130: **FAA Presentation**
Chuck Hedges, Deputy Assistant Administrator, Office of System Safety

- **Legal opinion on ASRS immunity coverage and 5-yr rule**
- **Safety Risk Management**

1200-1330: **Lunch**

1300 - 1345: **FAA Presentation on Internet Security**
Bob Anoll, ASRP Manager, Office of System Safety

1345-1415: **Open Discussion & Break**

1415-1700: **ASRS VMV, Goals & Master Strategies**
Bill Wirth and Linda Connell

1700 **Adjourn**

Friday, January 30, 2004

0900-0920: **Security Incident Reporting System (SIRS) Update**
Jeff Bixler, NASA ASRS Deputy Director

0920-1030: **ASRS VMV, Goals & Master Strategies (Con't)**

1030-1045: **Break**

1045-1115: **Final Agreement on ASRS Preamble, VMV, & Goals**

1115-1200: **Open Discussion**

1200: **Adjourn**

The Monterey Marriott
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Monterey, CA 93940

Appendix B

AVIATION SAFETY REPORTING SYSTEM SUBCOMMITTEE
(ASRSS)
Monterey, C.A.
January 29 & 30, 2004

LIST OF MEETING ATTENDEES

Subcommittee Members	
Wirth, William (Chair)	Air Line Pilots Association
Connell, Linda (Executive Sec'y)	NASA Ames Research Center
Bourque, Richard	Intl. Assn. of Machinists & Aerospace Workers
Hedges, Chuck	FAA, ASY-1
Kolander, Candace	Association of Flight Attendants
Landsberg, Bruce	Aircraft Owner's and Pilots Association
Prest, Al	Air Transport Association
Russell, Paul	Boeing/Aerospace Industries Association
Swanda, Ron	General Aviation Manufacturers Association
Voigt, Scott	National Air Traffic Controllers Association
Wright, Richard	Helicopter Association International
NASA Attendees	
Bixler, Jeffrey	NASA Ames Research Center
Connors, Mary	NASA Ames Research Center
FAA Attendees	
Anoll, Robert	FAA, ASY-300
Loranger, Phillip	FAA, AIS-500
Other Attendees	
Cole, Tracy	Battelle Memorial Institute
Edmunds, Bill	Air Line Pilots Association
Frank, Stephanie	Battelle Memorial Institute
Linns, Lynne	Lins and Associates
Mellone, Vince	Battelle Memorial Institute
Smith, Don	Air Line Pilots Association

Appendix C

AVIATION SAFETY REPORTING SYSTEM SUBCOMMITTEE
(ASRSS)
Monterey, CA
January 29-30, 2004

LIST OF PRESENTATION MATERIAL[1]

1) Status Report Update (Frank)	10	pages
2) Current High Profile Safety Issues (Mellone)	24	pages
3) FAA Presentation (Hedges)	52	pages
4) Security Incident Reporting System (Bixler)	9	pages
5) ASRS VMV, Goals & Master Strategies(Connell)	9	pages
6) FAA Presentation on Internet Security (Anoll & Loranger)	10	pages

[1]Presentation materials are on file at NASA Ames Research Center, Aviation Safety Reporting System, Code IHS, Moffett Field, CA 94035-1000